

CLAIMS

1 1. A server disposed in a packet network to
2 repeat a packet between a first terminal and
3 a second terminal comprising:
4 a session managing unit storing a first
5 address of said first terminal assigned to a
6 first session representing a connection
7 status between said server of its own and
8 said terminal and a second address of said
9 first terminal assigned to a second session
10 representing a connection status between said
11 server of its own and said first terminal;
12 a receiving unit receiving a packet
13 containing user data from said second
14 terminal;
15 a switching unit switching from said
16 first session of a packet having said first
17 address as a destination and containing said
18 user data to said second session of a packet
19 having said second address as the destination
20 and containing said user data on the basis of
21 said addresses stored in said session
22 managing unit; and
23 a transmitting unit transmitting said
24 packet using said second session switched by
25 said switching unit.

1 2. A server disposed in a packet network to
2 repeat a packet between a first terminal and
3 a second terminal comprising:
4 a session managing unit storing a first
5 address of said first terminal assigned to a
6 first session representing a connection
7 status between said server of its own and
8 said first terminal and a second address of
9 said first terminal assigned to a second
10 session representing a connection status
11 between said server of its own and said first
12 terminal;
13 a receiving unit receiving a packet
14 having said first address or said second
15 address as a source address and containing
16 user data from said first terminal in said
17 first session or said second session; and
18 a transmitting unit transmitting a
19 packet containing said user data in said
20 received packet and having an address of said
21 server of its own as the source address to
22 said second terminal in both said first
23 session and said second session.

1 3. The server according to claim 1, wherein
2 said first address is either an address

3 assigned by a mobile communication network or
4 an address assigned by said IP network, and
5 said second address is the other address.

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1 4. The server according to claim 2, wherein
2 said first address is either an address
3 assigned by a mobile communication network or
4 an address assigned by said IP network, and
5 said second address is the other address.

1 5. The server according to claim 1, wherein
2 said first session is either a session in
3 which said first terminal communicates with
4 said IP network over a mobile communication
5 network or a session in which said first
6 terminal directly accesses to said IP network
7 to communicate with the same, and said second
8 session is the other session.

1 6. The server according to claim 1, wherein
2 said switching unit monitors a quality of a
3 radio signal transmitted from said first
4 terminal in said first session, and switches
5 said first session or said second session on
6 the basis of predetermined detection.

1 7. A mobile communication terminal accessing
2 to a mobile communication network connected
3 to a packet network to be able to carry out a
4 packet communication with a server in said
5 packet network comprising:
6 an access obtaining unit directly
7 accessing to said packet network, not over
8 said mobile communication network, to obtain
9 an access for a packet communication;
10 a control unit controlling said address
11 obtaining unit to obtain an address when a
12 predetermined operation is performed on said
13 mobile communication terminal or it is
14 detected that a direct access to said packet
15 network becomes possible during the packet
16 communication with said server; and
17 a switching unit switching the packet
18 communication with said server to a packet
19 communication by a direct access to said
20 packet network using the address obtained by
21 said address obtaining unit.

1 8. A mobile communication terminal directly
2 accessing to a packet network connected to a
3 mobile communication terminal, not over said
4 mobile communication network, to be able to

5 carry out a packet communication with a
6 server in said packet network comprising:
7 an address obtaining unit directly
8 accessing to said mobile communication
9 network to obtain an address for a packet
10 communication;
11 a control unit controlling said address
12 obtaining unit to obtain an address when a
13 predetermined operation is performed on said
14 mobile communication terminal or it is
15 detected that a direct access to said packet
16 network becomes possible during the packet
17 communication with said server; and
18 a switching unit switching the packet
19 communication with said server to a packet
20 communication by a direct access to said
21 mobile communication network using the
22 address obtained by said address obtaining
23 unit.

1 9. The mobile communication terminal
2 according to claim 7, wherein said control
3 unit notifies said server of said obtained
4 address before the switching.

1 10. The mobile communication terminal
2 according to claim 7, wherein said switching

3 unit switches according to an instruction
4 from said server.

1 11. The mobile communication terminal
2 according to claim 7, wherein said switching
3 unit stops to transmit a packet for the
4 packet communication with said server
5 according to a first instruction from said
6 server, switches according to a second
7 instruction after said first instruction, and
8 starts to transmit a packet.

1 12. A radio apparatus disposed in a packet
2 network to carry out a radio communication
3 with a mobile communication terminal
4 comprising:
5 a measuring means measuring a receive
6 quality in said radio communication; and
7 a transmitting unit transmitting a
8 received packet from said mobile
9 communication terminal, a measured receive
10 quality or deterioration information
11 generated on the basis of said receive
12 quality to a server in said packet network
13 which is in communication with said mobile
14 communication terminal.

1 13. A communication method in a communication
2 system comprising a server disposed in a
3 packet network and a mobile communication
4 terminal being able to access to both a
5 mobile communication network connected to
6 said packet network and said packet network,
7 comprising the steps of:
8 sending a packet to be transmitted when
9 said mobile communication terminal carries
10 out a packet communication with another
11 terminal via said server, and controlling a
12 source address of the packet to said another
13 terminal by said server so that the source
14 address of said packet remains unchanged
15 before and after a switching of the network
16 to which said mobile communication terminal
17 accesses.

1 14. The communication method in a
2 communication system according to claim 13
3 further comprising the steps of:
4 notifying of an address to be used in a
5 network to be switched to from said mobile
6 communication terminal when the network to
7 which said mobile communication terminal
8 accesses is switched; and

9 switching a destination address of a
10 packet from said another terminal to said
11 notified address by said server when the
12 network to which said mobile communication
13 terminal accesses is switched.

1 15. A communication method in a communication
2 system comprising:

3 a first session communication step at
4 which a first terminal communicates with a
5 first server in a packet network over a
6 mobile communication network using a first
7 session representing a connection status
8 between said first terminal and said first
9 server;

10 a synchronous communication step at
11 which said first server starts a synchronous
12 communication with a second server in said
13 packet network;

14 a synchronization registration request
15 transmission step at which said first
16 terminal transmits a synchronization
17 registration request using a packet
18 communication set between said first terminal
19 and said first server;

20 a second session establishment step at
21 which a second session representing a direct

22 connection status between said first server
23 having received said synchronization
24 registration request and said first terminal
25 is established;

26 a handover step at which said first
27 server having received said synchronization
28 registration request hands over;

29 a switching step at which said first
30 terminal switches from said mobile
31 communication network to said packet network;
32 and

33 a communication step at which said first
34 terminal communicates with said second
35 terminal over said switched packet network
36 using said synchronous communication started
37 at said switching step.

1 16. A communication system comprising:

2 a packet network;

3 a mobile communication network connected
4 to said packet network;

5 a server disposed in said packet network
6 to repeat a packet between a first terminal
7 and a second terminal;

8 said first terminal
9 transmitting/receiving a packet to/from said

10 server directly or over said mobile
11 communication network;
12 said server comprising:
13 a session managing unit storing a
14 first address of said first terminal assigned
15 to a first session representing a connection
16 status between said server of its own and
17 said first terminal and a second address of
18 said first terminal assigned to a second
19 session representing a connection status
20 between said server of its own and said first
21 terminal;
22 a receiving unit receiving a packet
23 containing user data from said second
24 terminal;
25 a switching unit switching from said
26 first session of a packet having said first
27 address as the destination and containing
28 said user data to said second session of a
29 packet having said second address as a
30 destination and containing said user data on
31 the basis of said addresses stored in said
32 session managing unit;
33 a transmitting unit transmitting said
34 packet in said second session switched by
35 said switching unit;

36 said mobile communication terminal
37 comprising:
38 a transmitting/receiving unit
39 transmitting/receiving a packet to/from said
40 server in said packet network directly or
41 over said mobile communication network
42 connected to said packet network;
43 an address obtaining unit obtaining
44 an address for a packet communication from
45 the packet received by said
46 transmitting/receiving unit, generating a
47 packet having said obtained address and
48 directly accessing to said packet network;
49 an address managing unit storing said
50 address for the packet communication obtained
51 by said address obtaining unit;
52 a control unit controlling said
53 address obtaining unit to obtain said address
54 for the packet communication when detecting a
55 predetermined operation or a status in which
56 a direct access to said packet network
57 becomes possible during the packet
58 communication with said server over said
59 mobile communication network; and
60 a switching unit switching from the
61 packet communication with said server over
62 said mobile communication network to a packet

63 communication by a direct access to said
64 server when said control unit detects, and
65 inputting the address for a packet stored in
66 said address managing unit to said address
67 obtaining unit.